

## **REMARKS**

Claims 6–9, 23 and 25–31 are pending in this application following entry of the present Amendment. New claims 30 and 31 have been added. The following addresses the individual rejections of the Examiner in the order raised in the outstanding Office Action.

### **Claim Amendments and New Claims**

The amendments presented above have been made to point out particular features of the inventions so as to expedite the prosecution of the present application to allowance in accordance with the USPTO Patent Business Goals (65 Fed. Reg. 54603, September 8, 2000). These amendments do not represent an acquiescence or agreement with any of the outstanding rejections.

Claim 6 has been amended to recite, “a functional variant of said peptide....” Support for this claim amendment can be found in the specification on page 8, line 6 through the end of the paragraph.

Claims 6–8 have been amended to recite, “An isolated nucleic acid sequence....” Support for this amendment can be found in Example 1 of the specification, starting on page 22 through page 23, line 12.

Claims 7 and 8 have been amended to recite, “...or a subsequence thereof encoding an Epstein-Barr Virus peptide that is immunochemically reactive with antibodies to the Epstein-Barr Virus.” Support for this claim amendment can be found on page 8, second paragraph through page 9, line 19 of the specification.

Claims 9, 26 and 27 have been amended to remove the limitation “recombinant” from the instant claims.

Claims 23, 28 and 29 have been amended to recite, “using at least one nucleic acid sequence of claim [ ] or fragment thereof....” In addition, the instant claims have been amended to recite active method steps in accordance with US patent practice.

Claim 25 has been amended to recite components to be considered part of the kit of the instant claim, and now depends on claim 6. Support for this amendment can be found in page 20, lines 11–15 of the specification.

New claims 30 and 31 are similar to claim 25, except that new claim 30 depends on claim 7 and new claim 31 depends on claim 8.

In view of the forgoing, it is submitted that the claim amendments are supported by the application as filed, and Applicants respectfully request entry thereof.

#### **Claims Rejections - 35 U.S.C. § 101**

Claims 6–8 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Accordingly, claims 6–8 have been amended to recite “An isolated nucleic acid sequence...” to clarify the claimed subject matter as suggested by the Examiner. In view of the foregoing, Applicants respectfully request withdrawal of this rejection.

#### **Claims Rejections - 35 U.S.C. § 112**

Claims 6, 9, 23 and 25–29 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The various rejections of the Examiner will be addressed below in the order as presented in the Office Action.

The Examiner alleges claims 6, 9, 23, 25, 28 and 29 are indefinite on page 3, second paragraph of the Office Action, “for the recitation of the phrase, ‘functional variant thereof,’ because it is unclear what nucleic acids are encompassed by this term and the specification does not describe what the phrase means.” This rejection appears to be misplaced with respect to claims 28 and 29; this phrase does not appear in claims 28 and 29, nor do these claims depend on a claim that contains this recitation. Applicants believe that claims 28 and 29 were inadvertently included in this rejection by the Examiner. As detailed below, this rejection is respectfully traversed.

The phrase "functional variant thereof" recited in claim 6 is directed toward and describes peptides encoded by the isolated nucleic acid sequence of claim 6. Support for this language can be found in the paragraph starting on the second from last line of page 7 in the specification and continues on to page 8. Functional variants of the peptide encoded by the isolated nucleic acid sequence do not have altered biological or immunological activities (page 8, lines 16–19 of the specification) from the immunochemically reactive peptides described in and encoded by nucleic acids of claim 6. Examples of functional variants include: post-translational modifications, e.g. glycosylation, amidation, carboxylation and phosphorylation (page 8, lines 5–6 of the specification); acid addition salts, amides, esters, specifically C-terminal esters and N-acyl derivatives (page 8, lines 7–9 of the specification); as well as amino acid(s) substitutions, deletions, insertions, inversions and additions (page 8, lines 13–16 of the specification) to the peptide.

Thus, Applicants submit that there is sufficient basis and description in the specification for the phrase "functional variant." However, in order to more clearly claim the isolated nucleic acid of claim 6, the instant claim has been amended to recite "...or (b) a functional variant of said peptide described in (a)" to more clearly define and point out the features of the claimed invention.

Claims 9, 26 and 27 are rejected as indefinite for the recitation of the term, "recombinant vector," because it is allegedly unclear what aspect of the vector makes the vector recombinant. Applicants respectfully disagree with this rejection and note that "recombinant vector" is defined on page 13, third paragraph of the specification. Nonetheless, Applicants have removed the term "recombinant" as suggested by the Examiner to address this rejection and to expedite the prosecution of this application to allowance. Applicants note for the record that this is not a narrowing amendment.

Claims 23, 28 and 29 stand rejected as indefinite for lacking proper antecedent basis. The instant claims have been amended to recite: "using at least one nucleic acid according to claim [ ] or fragment thereof" in order to provide proper antecedent basis, thereby overcoming this rejection.

Claims 23, 28 and 29 are rejected as indefinite for failing to recite active method steps. Accordingly, Applicants have amended the instant claims to contain amplification and detection steps to carry out the method recited in the preamble of the instant claims.

Claim 25 is rejected as indefinite because the claim only recited the intended use without reciting the actual ingredients in the kit. Accordingly, Applicants have amended the claim to specific components included, i.e., isolated nucleic acid sequences, reagents for the amplification of Epstein-Barr Virus nucleic acid sequences and reagents for the detection of nucleic acid amplification products, in the kit.

In view of the foregoing, it is respectfully submitted that the outstanding rejection has been obviated. Accordingly, Applicants request that the outstanding indefiniteness rejection be withdrawn.

#### **Claims Rejections - 35 U.S.C. § 102(b)**


Claims 7, 8 and 26–29 stand rejected as being anticipated by Ambinder et al. (1989). The rejection is predicated on the decision from *In re Mott*, 190 U.S.P.Q. 536 (CCPA 1975), wherein “[c]laims must be given broadest reasonable construction their language will permit in ex parte prosecution...” The Office Action states that the claims can be construed as encompassing a nucleic acid with a single common nucleotide. Accordingly, claims 7 and 8 have been amended to recite an isolated nucleic acid sequence “comprising SEQ ID NO.: [ ] or a subsequence thereof encoding an Epstein-Barr Virus peptide that is immunochemically reactive with antibodies to the Epstein-Barr Virus” in order to more clearly distinguish the claimed nucleic acid fragments from Ambinder et al. The claimed fragments encode an immunoreactive peptide and are thus clearly longer than one nucleotide in length. Further, Ambinder et al. does not disclose nucleic acid sequences that encode peptides that are immunochemically reactive with antibodies to the Epstein-Barr Virus. Thus Applicants submit that the instant claims are not

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anticipated by Ambinder et al., and respectfully request that the outstanding rejection be withdrawn.

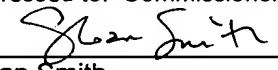
The points and concerns raised in the outstanding Office Action having been addressed in full, it is respectfully submitted that this application is in condition for allowance, which action is respectfully requested. Should the Examiner have any remaining concerns, it is requested that the Examiner contact the undersigned attorney to expedite the prosecution of this application.

Respectfully submitted,

  
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Sloan Smith